

Listing of Claims

1. (Currently Amended) A magnetic resonance imaging apparatus which is provided with at least one electrical accessory device ~~(6; 10, 11)~~ for use during the examination of an object, as well as with a connection lead ~~(13)~~ which is to be guided through an examination zone ~~(4)~~ of the magnetic resonance imaging apparatus, which zone can be exposed to an RF field, and which lead is intended to connect the accessory device ~~(6; 10, 11)~~ to a connection unit ~~(12)~~, at least one lead segment ~~(131, 132, ...)~~, having a length which is limited by at least one inductive coupling element ~~(141, 142, ...; 161, 162, ...)~~ and is unequal to $n \cdot \lambda / 2$, being connected in the connection lead ~~(13)~~, where λ denotes the RF wavelength and $n = 1, 2, 3, \dots$
2. (Currently Amended) A magnetic resonance imaging apparatus as claimed in claim 1, in which the length of the lead segment ~~(131, 132, ...)~~ is in the range of from $\lambda / 4$ to $\lambda / 8$.
3. (Currently Amended) A magnetic resonance imaging apparatus as claimed in claim 1, in which the inductive coupling element is a transformer ~~(141, 142, ...)~~.
4. (Currently Amended) A magnetic resonance imaging apparatus as claimed in claim 3, in which the transformer ~~(141, 142, ...)~~ is formed by a toroid as well as a primary and secondary winding wound thereon.
5. (Currently Amended) A magnetic resonance imaging apparatus as claimed in claim 1, in which the inductive coupling element is a conductor loop ~~(161, 162, ...)~~.
6. (Currently Amended) A magnetic resonance imaging apparatus as claimed in claim 1, in which the connection lead ~~(13)~~ is a two-wire lead or a coaxial lead.
7. (Currently Amended) A magnetic resonance imaging apparatus as claimed in claim 1, in which the inductive coupling element ~~(141, 142, ...; 161, 162, ...)~~ is bridged by ohmic resistors ~~(R)~~ in order to transfer direct voltage signals via the connection lead ~~(13)~~.

8. (Currently Amended) A magnetic resonance imaging apparatus as claimed in claim 1, in which the inductive coupling element (~~141, 142, ...; 161, 162, ...~~) is connected so as to form a resonant circuit in conjunction with at least one capacitive element (~~C1, C2~~), the resonance condition of said resonant circuit being satisfied for the frequency of a signal to be transferred via the connection lead (~~13~~).

9. (Currently Amended) A magnetic resonance imaging apparatus as claimed in claim 1, in which the accessory device is an RF body coil (~~6~~) or a catheter (~~10~~) with a transmission and/or receiving unit (~~11~~).

10. (Currently Amended) A body coil which forms an accessory device for use during the examination of an object by means of a magnetic resonance imaging apparatus, provided with a connection lead (~~13~~) which is arranged so as to extend through an examination zone (~~1~~) of the magnetic resonance imaging apparatus, which zone can be exposed to an RF field and to connect the body coil (~~6~~) to a connection unit (~~12~~), at least one lead segment (~~131, 132, ...~~), having a length which is limited by at least one inductive coupling element (~~141, 142, ...; 161, 162, ...~~) and is unequal to $n \cdot \lambda / 2$, being connected in the connection lead (~~13~~), where λ denotes the RF wavelength and $n = 1, 2, 3, \dots$

11. (Currently Amended) A catheter (~~10~~) with a transmission and/or receiving unit (~~11~~) which forms an accessory device for use during the examination of an object by means of a magnetic resonance imaging apparatus, provided with a connection lead (~~13~~) which is arranged so as to extend through an examination zone (~~1~~) of the magnetic resonance imaging apparatus, which zone can be exposed to an RF field, and to connect the transmission and/or receiving unit (~~11~~) to a connection unit (~~12~~), at least one lead segment (~~131, 132, ...~~), having a length which is limited by at least one inductive coupling element (~~141, 142, ...; 161, 162, ...~~) and is unequal to $n \cdot \lambda / 2$, being connected in the connection lead (~~13~~), where λ denotes the RF wavelength and $n = 1, 2, 3, \dots$